

## Work Order ID 60442



Page 1

Wednesday, July 07, 2010 3:02:38 PM

Item ID: DSI 9515-011

Accept



Setup Start



Revision ID:

Item Name: Lug Upgrade

Stop



Start Date: 7/8/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 7/22/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: MFDate: 10-7-11 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr Revision Nbr

DSI 9515

B

100



DOCUMENT CONTROL

DC

Document Control

Memo

0.00

0.00

JG for CL 10/07/18

SAC(07/2)

110



Pick Kit

0.00

Packaging

Memo

0.00

10-7-9 SF

(S)

120



QC4- 100% Inspect kits for completeness

0.00

QC

Memo

0.00

SAC(07/2)

(X2)

Quality Control

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 60442**

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Page 2

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Start Date: 7/8/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 7/22/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan:

Date: Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130



Packaging

0.00

*P/C 14/7/10*

Packaging

Memo

0.00

Identify and pack for shipping as per PPP DSI9515-011  
Location: \_\_\_\_\_

*Done P/C*

140



QC

QC21- Final Inspection - Work Order Release

0.00

Quality Control

Memo

0.00

*10/07/2010*

*MF*

*10-7-21*

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# Picklist Print

Wednesday, July 07, 2010 3:02:37 PM

Page 2

Work Order ID: 60442



Parent Item: DSI 9515-011



Parent Item Name: Lug Upgrade

Start Date: 7/8/2010

Required Date: 7/22/2010

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0463J



Purchased

No

110

Each

4,111.000

32 64



10-7-95d

S

Washer

## Location

ST297

## Loc Qty

4025

ST298

115000

4025

114576

86

114883

68

114883

18

## Loc Code

64

MS21042L4



Purchased

No

110

Each

4,410.000

16 32



10-7-95f(3x)

S

Nut

## Location

ST300

## Loc Qty

4398

113422

68

114523

28

114718

302

114784

2000

115108

2000

ST356

12

108145

12

## Loc Code

20

12

W/O:		WORK ORDER CHANGES							
DATE	STEP	PROCEDURE CHANGE			By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-602 REV E (OR EARLIER REV.)  
AND INSTRUCTIONS FOR CONTINUOUS AIRWORTHINESS ICA-D350-602 REV. 0

REF. TCCA STC: SH93-97

REF. FAA STC: SR01144NY

REF. EASA STC: EASA.IM.R.S.01290

**REFERENCE ONLY**

*S*

## PURPOSE

Dart Heli-Utility-Pods D350-602-011 @ CHG 006 and D350-602-013/-014 @ CHG 002 have new attachment lugs.

## CHANGE

The D2230-1/-3 clamps are replaced with wider D4091-1/D3910-3 lugs. The abrasion strip is replaced with D3984-030 rubber extrusion. The D2462-1700 Neoprene Seal is replaced with D2461-1700 Neoprene 'D' Seal. The modified parts list for Installation Instruction D350-602 and Instructions for Continued Airworthiness ICA-D350-602 is shown on sheet 2 of this service instruction. Install the lugs as shown in Figure 1 & 2 of this service instruction. The pod should otherwise be installed per D350-602 and maintained per ICA-D350-602.

The weight and balance for Dart Heli-Utility-Pods D350-602-011 @ CHG 006 and D350-602-013/-014 @ CHG 002 (or later) are updated as follows:

## **5.0 WEIGHT AND BALANCE (D350-602 Rev. E)**

## **25.6 WEIGHT AND BALANCE (ICA-D350-602 Rev. 0)**

The following weight and balance information is for the Dart *Heli-Utility-Pod™*. The weight and balance of any parts that are removed from the aircraft to perform this installation or equipment installed/stowed in the pods are the responsibility of the installer.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-602-011 @ CHG 006 <i>Heli-Utility-Pod™ LH or RH</i>	61.2 lb 27.8 kg	±51.0 in ±1.29 m	±3121 in-lb ±35.9 m-kg	135 in 3.43 m	8262 in-lb 95.4 m-kg
D350-602-013 @ CHG 002 <i>Heli-Utility-Pod™ LH</i>	61.2 lb 27.8 kg	-51.0 in -1.29 m	-3121 in-lb -35.9 m-kg	135 in 3.43 m	6872 in-lb 79.2 m-kg
D350-602-014 @ CHG 002 <i>Heli-Utility-Pod™ RH</i>	61.2 lb 27.8 kg	+51.0 in +1.29 m	+3121 in-lb +35.9 m-kg	135 in 3.43 m	6872 in-lb 79.2 m-kg

## LUG UPGRADE KIT

The Dart DSI-9515-011 kit is available to upgrade D350-602-XXX Heli-Utility-Pods made to earlier change numbers with D4091-1 / D3910-3 lugs. The lugs should be installed per Figure 1 & 2 of this service instruction.

QTY -011	Part Number	Description
X	DSI-9515-011	LUG UPGRADE KIT
4	D4091-1	LUG
4	D3910-3	LUG
8	D3984-030	RUBBER EXTRUSION
16	AN4-14A	BOLT
32	AN960JD416	WASHER (OR NAS1149DO463J)
16	MS21042L4	NUT (OR MS21042-4)

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
BRANCH	
DAO # 01-O-01	
<b>APPROVED</b>	
BY:	<i>[Signature]</i>
D. SHEPHERD (DE # 02)	
DATE:	10.04.23
CERT. NO.:	SH93-97
ISSUE NO.:	4

B	NAS1149DO463J WAS xDN432J & CHG QTY		CP	10.04.23	
A	NEW ISSUE		CP	10.03.30	
REV.	DESCRIPTION		BY	DATE	
DESIGN	<i>QP</i>	<b>DART AEROSPACE LTD</b> <b>HAWKESBURY, ONTARIO, CANADA</b>	DRAWING NO.		
DRAWN	<i>QP</i>		DSI 9515		REV. B
CHECKED	<i>✓</i>		SHEET 1 OF 4		
MFG. APPR.	<i>N/A</i>		TITLE		SCALE
APPROVED	<i>AMP</i>		LUG MODIFICATION		NTS
DE APPR.	<i>#</i>		COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		
DATE	10.04.23				

**REFERENCE ONLY**

**6.0 PART LIST (D350-602 Rev. E)**

**25.7 PARTS LIST (ICA-D350-602 Rev. 0)**

Qty D350-602 -011	Qty D350-602 -013	Qty D350-602 -014	Qty DSI9052 -013	Part Number	Description
X				D350-602-011	HELI-UTILITY-POD™ (FITS BOTH LH/ RH)
	X			D350-602-013	HELI-UTILITY-POD™, LH
		X		D350-602-014	HELI-UTILITY-POD™, RH
			X	DSI9052-013	QUICK RELEASE KIT
1				D2694	POD ASSEMBLY (LH OR RH)
	1			D3322-041	POD ASSEMBLY (LH)
		1		D3322-042	POD ASSEMBLY (RH)
1	1	1		*D2202-1	POD LID
1				*D2202-3	POD BASE
1		1		*D2202-5	POD BASE
5	5	5		*D2204-9	LATCH
1	1	1		*D2429-041	SPRING CLIP ASSEMBLY
1	1	1		*D2461-1700	NEOPRENE 'D' SEAL
5	5	5		*D2528-1	BACKER PLATE
4	4	4		*D2528-3	BACKER PLATE
1	1	1		*D2569	HINGE
1	1	1		*D3007-041	PROP ASSEMBLY
1	1	1		** D2012-107	CLEVIS
2	2	2		** D2022-101	SPACER
1	1	1		** D2705	SUPPORT BRACKET
1	1	1		** D3007-1	STRUT
1	1	1		** D3015-3	LOCKNUT
1	1	1		** AN4-10A	BOLT
1	1	1		** AN960JD416	WASHER
1	1	1		** MS21042L4	NUT (OR MS21042-4)
1	1	1		** SL69-BS	BALL STUD
1	1	1		** AN960JD516	WASHER
19	19	19		AN4-5A	BOLT
1	1	1		AN4-6A	BOLT
2	2	2		AN526C632R7	SCREW
21	21	21		AN960JD416	WASHER
2	2	2		AN960JD6	WASHER
2	2	2		MS21042L06	NUT (OR MS21042-06)
20	20	20		MS21042L4	NUT (OR MS21042-4)
4	4	4		D4091-1	LUG
4	4	4		D3910-3	LUG
1	1	1		D2258-160	LABEL
1	1	1		D2324-1	STRUT ASSEMBLY
2	2	2		D2523	MOUNTING BRACKET
2	2	2		D2524	SIDE PLATE
1	1	1		D3495-1	PLACARD
8	8	8		D3984-030	RUBBER EXTRUSION
4	4	4		AN3-7A	BOLT
8	8	8		AN3-15A	BOLT
1	1	1		AN4-12A	BOLT
16	16	16		AN4-14A	BOLT
4	4	4		AN4-16A	BOLT
24	24	24		AN960JD10	WASHER
42	42	42		AN960JD416	WASHER
12	12	12		MS21042L3	NUT (OR MS21042-3)
21	21	21		MS21042L4	NUT (OR MS21042-4)
		1		BLRS-010	QUICK RELEASE PIN (1" GRIP)
		3		BLRS-020	QUICK RELEASE PIN (1.5" GRIP)

\* INCLUDED IN D2694 OR D3322-041/-042 POD ASSEMBLIES LISTED ABOVE

\*\* INCLUDED IN D3007-041 PROP ASSEMBLY LISTED ABOVE

CANADA	
DEPARTMENT OF TRANSPORT	
AIRCRAFT CERTIFICATION	
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DESIGN	<i>gp</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>gp</i>		
CHECKED	<i>1</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>N/A</i>	DSI 9515	SHEET 2 OF 4
APPROVED	<i>WD</i>	TITLE	SCALE
DE APPR.	<i>WD</i>	LUG MODIFICATION	NTS
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